

**What is claimed is:**

1           1. A method of preparing reaction regions for  
2 biochips, comprising the steps of:

3           providing a first member and a second member;

4           disposing at least one spacer between the first  
5           member and the second member to form a reaction  
6           region between the first member and the second  
7           member; and

8           filling a sample solution in the reaction region.

1           2. The method of preparing reaction regions for  
2 biochips as claimed in claim 1, wherein the first member  
3 and the second member are biochips.

1           3. The method of preparing reaction regions for  
2 biochips as claimed in claim 2, wherein said biochips are  
3 the same.

1           4. The method of preparing reaction regions for  
2 biochips as claimed in claim 2, wherein said biochips are  
3 different.

1           5. The method of preparing reaction regions for  
2 biochips as claimed in claim 1, further comprising a  
3 holder to assemble the first member and the second  
4 member.

1           6. The method of preparing reaction regions for  
2 biochips as claimed in claim 1, further comprising  
3 enclosing the reaction regions in a sealed environment.

1           7. The method of preparing reaction regions for  
2 biochips as claimed in claim 1, wherein the first member  
3 and the second member are inert to the sample solution.

1           8. The method of preparing reaction regions for  
2 biochips as claimed in claim 1, further comprising a step  
3 of incubating the reaction region under hybridization  
4 condition.

1           9. An apparatus containing reaction regions for  
2 biochips, comprising:

3           a first member and a second member disposed in  
4 parallel; and

5           at least one spacer disposed between the first  
6 member and the second member to form a reaction  
7 region between the first member and the second  
8 member.

1           10. The apparatus as claimed in claim 9, wherein the  
2 first member and the second member are biochips.

1           11. The apparatus as claimed in claim 10, wherein  
2 said biochips are the same.

1           12. The apparatus as claimed in claim 10, wherein  
2 said biochips are different.

1           13. The apparatus as claimed in claim 9, further  
2 comprising a holder to assemble the first member and the  
3 second member.

1           14. The apparatus as claimed in claim 9, wherein  
2           the reaction regions are enclosed in a sealed  
3           environment.  
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5